

REMARKS

Claims 1, 6-9, and 18 are currently amended. Claim 5 is canceled. Accordingly, claims 1-4 and 6-20 remain in the application for consideration. In view of the foregoing amendments and the following remarks, Applicant respectfully requests that the rejections be withdrawn and that the application be forwarded onto issuance.

The Claim Rejections

Claims 1-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-4 stand rejected under 35 U.S.C. §102(b) as being anticipated by Advani.

Claims 5-7, 9-15 and 17-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Advani.

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35 U.S.C. §112 Rejections

The Office asserts that claims 1-20 are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office agreed that claims reciting the limitations verbally proposed during the interview would obviate the grounds for the 112 rejections.

The Claims

Applicant respectfully submits that Advani appears to disclose a means of visualizing the efficiency of a parallel processing computer. Specifically, Advani appears to disclose displaying a visual representation of a trace file containing an extraordinarily large amount of data from 10s or 100s or processors, enabling a programmer to identify periods of processor inactivity, interrupts, and other anomalies typical of parallel processing systems. Applicant's invention, however, identifies which individual events executed during drawing of a single frame are taking too much time by reconstructing the frame event by event, enabling the programmer to easily identify which event(s) is taking too much time. Further, applicant's invention enables the programmer to debug vertex and pixel shaders. Advani appears to disclose visualizing large amounts of data pertaining to parallel processing by abstracting the data into graphs, allowing the issue to be inferred by a programmer. On the other hand, applicant's claims recite visualizing events that draw graphics with a graphics processing unit by capturing the events as they are executed, timing the how long it takes to execute each event, and re-playing the generation of the graphics event by event, allowing the programmer to visualize which events are the most time consuming.

Claim 1, as amended, recites a method for controlling presentation of information to facilitate performance analysis for processing, the method comprising:

- capturing a list of events directed at composing a video frame during processing of a set of commands by a graphics processing unit;
- displaying a listing of the captured events as well as information regarding the processing of the events;
- displaying a window including a video frame portion that displays a rendering of the video frame;
- receiving a user selection of one of the events in the listing;

- configuring a graphics processing unit to execute the selected event;
- executing the selected event in the graphics processing unit; and
- displaying in the video frame portion a visual representation of the frame resulting from the execution of the selected event.

In making out a rejection of this claim before its amendment, the Office argues that the subject matter is anticipated by Advani. Applicant respectfully disagrees. Nevertheless, without conceding the propriety of the Office's rejection and for the sole purpose of expediting allowance, this claim has been amended to recite features discussed in the above-mentioned telephonic interview.

Applicant respectfully submits, however, that Advani does not disclose or suggest "capturing a list of events directed at composing a video frame", nor does Advani disclose or suggest "receiving a user selection of one of the events in the listing; configuring a graphics processing unit to execute the selected event; executing the selected event in the graphics processing unit" as recited in Applicant's claim.

For at least this reason, this claim stands allowable.

Claims 2-4 and 6-8 depend from claim 1 and, as such, the remarks made above in regards to claim 1 apply equally to these claims. The rejections of these claims are also improper as failing to show these claims' own recited features which, in combination with those recited in claim 1, are not shown to be taught or suggested, either singly or in combination, in the references of record.

Claim 9 recites one or more computer readable media having one or more instructions that, when executed by one or more processors, causes the one or more processors to:

- Capture a list of events directed at composing a video frame during processing of a set of commands by a graphics processing unit;
- display a first window that identifies the list of events that have been captured during the drawing of the video frame;

- receive a user selection of one of the events in the list;
- configure a graphics processing unit to execute the selected event;
- execute the selected event in the graphics processing unit; and
- display a second window including a video frame portion that shows how the frame appears at different points while being drawn

In making out a rejection of this claim before its amendment, the Office argues that the subject matter is anticipated by Advani. Applicant respectfully disagrees. Nevertheless, without conceding the propriety of the Office's rejection and for the sole purpose of expediting allowance, this claim has been amended to recite features discussed in the above-mentioned telephonic interview.

Applicant respectfully submits that Advani does not disclose or suggest receive a user selection of one of the events in the list; configure a graphics processing unit to execute the selected event; execute the selected event in the graphics processing unit", as recited in Applicant's claim (emphasis added). Applicant respectfully submits that Advani appears to disclose display of data previously captured, however Advani does not display replaying the events in order to debug and/or profile the code as it executes, as is recited in claims 1-20.

For at least this reason, this claim stands allowable.

Claims 10-17 depend from claim 9 and, as such, the remarks made above in regards to claim 9 apply equally to these claims. The rejections of these claims are also improper as failing to show these claims' own recited features which, in combination with those recited in claim 9, are not shown to be taught or suggested, either singly or in combination, in the references of record.

Claims 18 is allowable for reasons analogous to the reasons claims 1 and claims 8 are allowable.

For at least this reason, this claim stands allowable.

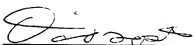
Claims 19-20 depend from claim 18 and, as such, the remarks made above in regards to claim 18 apply equally to these claims. The rejections of these claims are also improper as failing to show these claims' own recited features which, in combination with those recited in claim 18, are not shown to be taught or suggested, either singly or in combination, in the references of record.

Conclusion

All of the claims are in condition for allowance. Accordingly, Applicant requests a Notice of Allowability be issued forthwith. If the Office's next anticipated action is to be anything other than issuance of a Notice of Allowability, Applicant respectfully requests a telephone call for the purpose of scheduling an interview.

Respectfully Submitted,

Dated: 11-3-2007

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